

**BY ORDER OF THE COMMANDER  
AIR FORCE MATERIEL COMMAND**

**AIR FORCE INSTRUCTION 11-215**



**AFMC  
Supplement 1**

**26 MARCH 1998**

***Flying Operations***

***FLIGHT MANUALS PROGRAM(FMP)***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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OPR: HQ AFMC/DOV (SMSgt Michael C.  
Hushion)  
Supersedes AFR 60-9/AFMC Sup 1, 20 Novem-  
ber 1989 and AFMC Sup 2, 28 March  
1986

Certified by: HQ AFMC/DO (Maj Gen Francis C.  
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This supplement does not apply to the Air National Guard (ANG) or US Air Force Reserve (USAFR) units and members.

**SUMMARY OF REVISIONS:(AFMC)**

This supplement combines requirements of AFR 60-9/AFLC Sup 1 and AFSC Sup 1. It also contains instructions for development and maintenance of AFMC Modification Manuals. IC 98-1 dated 26 March 1998 added 31 March 1998. This change adds text to clarify the experience required to fill Flight Manual Managers positions at ALCs and change the OPR of the supplement. A vertical bar indicates revision from the previous edition. The IC by itself is added as the last page of this publication.

*AFI 11-215, 6 May 1994, is supplemented as follows:*

2.1.2.(AFMC) Product and Air Logistics Centers will organize the FMP management function to provide enhanced support to the aircraft SPDs, provide rapid response to using command requirements, and perform the duties and responsibilities of this regulation.

2.1.2.1(Added). Flight Manual Manager positions should be filled with the most qualified individual as determined by the respective ALC. While aircrew or engineering experience within a specific MDS is desired, the overall intent is to ensure the position is filled by an individual who understands the Flight Manual Program and the Air Force Technical Order system

2.1.2.2(Added). The chief of an organizational element assigned engineering responsibility for FMMs should have military rated aircrew experience (pilot, navigator or electronic warfare officer) with an engineering degree. Experience as a FMM can satisfy this requirement.

2.1.3.(AFMC) Follow the provisions of AFI 99-101, Developmental Test and Evaluation.

2.1.4.(AFMC) The SPD or ALC TOMA responsible for a military aircraft system's TOs must establish procedures to ensure the FMM is notified of all TO updates which COULD affect FMP publications. The office with administration management responsibility for FMP publications will:

2.1.4.1(Added). Establish printing priorities for FMP publications by coordination with the FMM and the base information management directorate. Give special attention to priorities and time limits for safety and operational supplements.

2.1.4.2(Added). Track the production of all FMP publications through the entire publication cycle.

2.2.10.(AFMC) AFMC unit Stan Eval offices will determine if a unit needs to post supplements not applicable to the aircraft they operate. The non-applicable supplement will:

- Be reviewed by the unit Chief of Stan Eval.
- Be filed in the affected basic manual as specified in TO 00-5-2.
- Be annotated "Not Applicable to (unit designation)" at the top of the supplement.
- NOT be referenced in the affected basic manual.

2.4.2.(AFMC) Coordinate proposed partial flight manuals and checklists with HQ AFMC/DOV or their designated representative.

2.4.3.(AFMC) Use a Modification Flight Manual (MFM) to describe Class II modifications installed on aircraft. See attachment 5 for specific instructions.

3.1.(AFMC) The AF Development Test Center (AFDTC) is delegated responsibility for conventional weapons delivery (-34) source data (TO 00-5-3, Chapter 17). OL-NS/EN (ASC) is delegated responsibility for nuclear weapons related to aircraft (TOs 1C-XXX-16, -25 thru -31 series) (TO 00-5-3, Chapter 2). San Antonio ALC (SA-ALC) is delegated responsibility for the conventional weapons delivery Standard Manual (1-1M-34 series) (TO 00-5-3, Chapter 2).

4.15.(AFMC) The FMM will coordinate with the TOMA to ensure concurrent delivery of manuals and associated checklists, supplements, and TCTOs. The following options must be considered:

<sup>2</sup> Obtain guarantee of concurrent delivery from the print contractor through the GPO.

<sup>2</sup> If the GPO cannot guarantee, obtain guarantee and printing support from on-base printing facilities.

<sup>2</sup> If neither is feasible, request a direct-deal printing contract with a vendor

4.16.(AFMC) Bullet 1 Interim supplements should state whether formal supplements or changes are being prepared, and the estimated publishing date if so. Issue interim supplements according to AFMCR 8-3.

4.20(Added). The FMM will provide guidance and recommendations, for assigned aircraft, on proposed cockpit or aircrew station design configuration changes

to ensure standardization and human factors are considered according to the concepts in the AFMC Aeronautical Systems Design Handbook series.

4.21(Added). The FMM advises ASC/ENE of aircraft modifications affecting performance characteristics,

and provides substantiating data for update of Standard Aircraft Characteristics Charts.

4.22(Added). The Life Support Commodity Manager will coordinate with the FMM to ensure FMP publications reflect changes to their life support system(s).

4.23(Added). The FMM will provide copies of FMP updates resulting from mishap reports to HQ AFMC/DOV.

5.1.(AFMC) Product and Air Logistics Center commanders must ensure proper support for the FMP from all Center elements. This includes developing procedures to ensure commodity managers and SPDs coordinate proposed modifications that impact the Flight Manuals with the FMM office. Rapid and timely printing support of FMP publications is essential for flight safety.

5.6.(AFMC) Bullet 1 Issue personal copies of flight manuals and checklists containing inflight crew duties or technical information to aircrew members for each aircraft in which maintaining qualification. EXCEPTION: When additional Mission or Series aircraft of the same Design are assigned or operated by the unit, the DFO may waive the requirement for issuing personal flight manuals and checklists to individual crewmembers for each Mission/Design/Series. In this instance, units must maintain sufficient copies of the applicable flight manuals and checklists in a central location for individual aircrew study, mission planning, or issue before flight. However, issue each crewmember personal flight manuals and checklists for at least one of the unit M/D/S aircraft.

5.6.(AFMC) Bullet 2 Each AFMC unit operating aircraft must establish a separate control system for managing FMP publications. Including: validation and verification efforts, distribution of flight manuals and crew checklists, changes, revisions, safety supplements and operational supplements. Each unit will designate a primary and alternate Flight Manual Control Officer (FMCO) (officer or NCO) in writing. FMCOs will:

<sup>2</sup> Monitor FMP publication validation and verification efforts to ensure discrepancies are documented and forwarded to the FMM for action.

<sup>2</sup> Ensure approved corrections to FMP publications are received and posted in a timely manner.

<sup>2</sup> Submit FMP publication requirements to the base TO Distribution Office (TODO) (for formal TOs) or the FMM (for preliminary TOs). Ensure proper quantities ordered are received and requisition any shortages immediately. Review TO indexes to ensure manuals and checklists are current.

<sup>2</sup> Establish a system for immediate notification by the TODO or FMM of receipt of FMP publication updates and supplements.

<sup>2</sup> Establish a system of rapid distribution of FMP publications to aircrew members. Include a method of notifying aircrew members on the content of updates and supplements.

<sup>2</sup> When aircrew members are off-station (leave, TDY, etc.) ensure the system provides for notification on any changes received prior to their next flight.

<sup>2</sup> Maintain an AFTO Form 110 (or ATOMS) file to record receipt and distribution of TOs, in accordance with TO 00-5-2.

5.8.(AFMC) Personnel from HQ AFMC/DOV will act as the AFMC representative to FMRCs. When AFMC/DOV does not have a qualified aircrew member, they will designate a qualified representative from another AFMC unit.

8.(AFMC) AF Forms 847 will be prepared in duplicate. Report NATO E-3A FMP publication changes on E-3A Component Form 82, according to NAEW Directive 80-103.

9.2.1.(AFMC) HQ AFMC/DOV may delegate AF Form 847 review and approval or disapproval authority for specific military aircraft systems to other organizations or individuals within AFMC. This delegation must be in writing and be provided to units operating the systems, FMMs and HQ AFMC/DOO.

<sup>2</sup> Delegated organizations/individuals will forward copies of approved or disapproved AF Forms 847 to HQ AFMC/DOV.

<sup>2</sup> Delegated individuals will notify HQ AFMC/DOV of projected changes that would preclude continuance as review officials in sufficient time to permit identification of replacements.

<sup>2</sup> AFMC units will process AF Forms 847 through their unit Stan Eval for review and control number assignment. Unit Stan Eval will keep one copy of the AF Form 847 and forward the original to HQ AFMC/DOV. If the unit does not have a Stan Eval function, forward AF Forms 847 directly to HQ AFMC/DOV.

**Attachment 5(Added)(AFMC)****AFMC MODIFICATION FLIGHT MANUALS**

**A5.1.(AFMC) General Requirements.** Modification flight manuals (MFM) will provide operating instructions and technical data to aircrews for normal, abnormal, or emergency conditions. Provide verified aircraft performance data when the modification affects existing basic aircraft performance. Use illustrations, photographs, charts, graphs, schematics, or any other means to enhance the understanding and operation of an aircraft.

A5.1.1(AFMC). Publish a Tailored Aircrew Checklist (TAC) when a modification effects an abbreviated checklist (-1CL-X).

A5.1.2(AFMC). Changes to the MFM resulting from modification changes or basic flight manual information changes may be done using a Revision, Change or Modification Operational Supplement (MOS).

A5.1.3(AFMC). The unit Chief of Stan Eval or a designated representative must sign the MFM before distribution and use.

**A5.2.(AFMC). Format and Organization** - Style and format of the MFM will be the same as the basic flight manual with the addition of two sections. Sequentially number and title these sections "Test Equipment" and "Tailored Aircrew Checklist" respectively. Each MFM must contain the following information:

A5.2.1.(AFMC). Title Page that contains the following:

<sup>2</sup> The words "MODIFICATION FLIGHT MANUAL"

<sup>2</sup> The MFM effective date and change number

<sup>2</sup> Mission/Design/Series (M/D/S) and aircraft tail number(s) of affected aircraft

<sup>2</sup> The statement "This publication is incomplete without TO 1X-XXX-1 (and TO 1X-XXX-1-1 when changed by a modification)

<sup>2</sup> Modification Operating Supplements (MOSs) incorporated by the latest MFM change

<sup>2</sup> The statement, "Commanders are responsible for bringing this publication to the attention of all Air Force personnel cleared for operation of subject aircraft"

<sup>2</sup> A limited distribution statement

<sup>2</sup> Signature and signature block that authorized the MFM.

<sup>2</sup> Optional, an aircraft photograph on title page.

A5.2.2(AFMC).. List of Effective Pages, following the title page, that contains the following:

<sup>2</sup> Current listing of each page, with change number.

<sup>2</sup> Date of issue for original and change pages.

<sup>2</sup> Current listing of Tailored Aircrew Checklists.

A5.2.3(AFMC).. Publication Summary Page, following the list of effective pages, that contains a list of current modifications in the MFM, status of Modification Operational Supplements and the currency review date with signature blocks.

A5.2.4(AFMC).. Aircraft Summary page, following the publication summary page, that provides a brief review of class II modifications or aircraft usage.

A5.2.5(AFMC).. Table of Contents page, following the aircraft summary page, listing the sections and page numbers affected in each section of the MFM.

A5.2.6(AFMC).. Arrange sections in the same manner and sequence as the basic flight manual. If omitting an entire section, put the section title and a note to refer to the basic flight manual for the required information in the MFM. Notes, warnings, and cautions will follow the guidelines of MIL-M-7700.

A5.2.6.1(AFMC).. Add a description to the applicable section(s) of the MFM for equipment not mentioned in the basic flight manual. Add and refer to supporting documentation as an appendix to the MFM if rewriting the complete description is impractical but necessary for understanding the equipment.

A5.2.6.2(AFMC).. Add or delete expanded checklist procedural steps to the basic flight manual expanded checklist resulting from the modifications or demodifications. The abbreviated checklist items need not reflect items have changed. You may replace extensively modified checklists in their entirety or add new checklists (example, Instrument System Operation.) In these cases the specific expanded checklist will state why this was done..

<sup>2</sup> State "Deleted" followed by the checklist item when a checklist step is deleted. (example, "4. Deleted...Mark II Antiskid-TEST")

<sup>2</sup> State "Added" followed by the checklist item when a checklist step is added. (example, "8.a. Added...Time Code Generator-ON (P)")

<sup>2</sup> State "Changed" followed by the checklist item when checklist step is changed. (example, "12. Changed...Radar-As required (P) to -OFF (P)")

A5.2.6.3(AFMC).. Every page (including photographs, schematics, charts etc.) in the MFM must have a page number.

A5.2.6.4(AFMC).. All photographs, schematics, charts, etc. will have a figure number.

A5.2.7(AFMC).. Add additional sections as follows:

<sup>2</sup> Title the first added section "TEST EQUIPMENT" and it must contain information on equipment used only for test missions.

<sup>2</sup> Title the second added section "TAILORED AIRCREW CHECKLIST" and it must contain all abbreviated checklists pertaining to the modification(s).

**A5.3(AFMC).. Tailored Aircrew Checklist (TAC)** Procedures in the TAC must be the flight manual procedures updated with the information presented in the MFM. Include all TACs in the MFM, in the abbreviated format.

A5.3.1(AFMC).. Each page of the TAC will include the M/D/S, aircraft serial number, page number, and dateline.

A5.3.2(AFMC).. All photographs, schematics, charts, etc. will have a figure number.

A5.3.3(AFMC).. If an interim supplement to the basic flight manual results in a change to its checklist but not the MFM, update the TAC with write-in corrections referencing the appropriate supplement without a MOS.

A5.3.4(AFMC).. If aircraft coded items in the flight manual do not apply to the aircraft a MFM is written for, they do not need to be included in the TAC.

**A5.4(AFMC). Revision and Change** Revisions or changes may be used to update a MFM using definitions in T.O. 00-5-1. Either will include a Title Page, List of Effective Pages and a Publications Summary Page.

**A5.5(AFMC).. Modification Operational Supplement (MOS)** A Modification Operational Supplement to the MFM may be published, instead of a revision or change, for each short-term project, temporary aircraft modification, description of class II modified stores, basic flight manual change or supplement effecting the contents or procedures in the MFM.

A5.5.1(AFMC).. A MOS must include an updated Publication Summary Page containing current status of MFM and MOS(s).

A5.5.2(AFMC).. Only rescind a MOS by incorporating it into another MOS, change or revision. When incorporating a MOS in a change or revision, annotate the incorporated MOS(s) on the title page.

A5.5.3(AFMC).. A MOS that effects the Tailored Aircrew Checklist Section must include replacement pages.

A5.5.4(AFMC).. Numbering of MOSs will be continuous. Do not re-use a number even if it has been incorporated in a change or reprint.

A5.6(AFMC).. Maintaining the Modification Flight Manual - Maintain MFMs as follows:

<sup>2</sup> Maintain a separate MFM for each modified aircraft.

<sup>2</sup> The unit's chief pilot of each M/D/S will review all changes, safety supplements, and operational supplements for compatibility with the existing MFMs.

<sup>2</sup> Review each MFM semiannually for applicability, currency, and currency with the basic flight manual date.

<sup>2</sup> A MFM update must include outstanding MOS(s) into the MFM.

A5.7(AFMC).. Central Oversight - Each office of standardization and evaluation is responsible for the management of their unit Modification Flight Manual Program.

**Attachment 6(Added)(AFMC)****IC 98-1**

IC 98-1 TO AFI 11-215/AFMC SUP 1, FLIGHT MANUALS PROGRAM (FMP), 20 NOV 94  
26 MARCH 1998

**SUMMARY OF REVISIONS**

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2.1.2.1.(Added) Replace text with the following: Flight Manual Managers positions should be filled with the most qualified individual as determined by the respective ALC. While aircrew or engineering experience within a specific MDS is desired, the overall intent is to ensure the position is filled by an individual who understands the Flight Manual Program and the Air Force Technical Order system.

OPR: Delete previous OPR and add new OPR: HQ AFMC/DOV (SMSgt Michael C. Hushion)

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